# Time Allocations of Children in Single-Parent Urban Utah Families to Selected Household Tasks 

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## TIME ALLOCATIONS OF CHILDREN IN

SINGLE-PARENT URBAN UTAH
FAMILIES TO SELECTED

HOUSEHOLD TASKS
by
Susan Wilde Kingsford

A thesis submitted in partial fulfillment of the requirements for the degree
of
MASTER OF SCIENCE
in
Home Economics and Consumer Education

Approved:

Magor Professot
Committee Member

Committee Member
Bean of Graduate Studies

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ABSTRACT<br>Time Allocations of Children in<br>Single-Parent Urban Utah<br>Families to Selected<br>Household Tasks

## by

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Utah State University, 1991

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The purpose of this study was to investigate how selected factors are related to the time children in singleparent families spend in the household tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members.

The data for this study were collected from 89 femaleheaded single-parent/two-child households in the greater metropolitan Salt Lake City, Utah area. Time use data were collected for mothers and their children between the ages of 6 and 17. There were 178 children in the 89 families, of which 150 were in the specified age range.

It was not possible to select a random sample for this study. Thus, to reflect a random sample of single-parent/two-child urban Utah households, data were weighted using standard weighting procedures and 1980 census figures. Two instruments were used to collect data from respondents, a time diary and a questionnaire.

Research that has examined children in single-parent households has compared their time allocations to those of children in two-parent households. There has been no research that has specifically examined variations in the time spent by children in single-parent families that could be related to their household work.

Multiple regression was used to analyze the relationship between a child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions with the amount of time children of single-parent families spent in the six selected household tasks.

This study found that children of single-parent families spent varying amounts of time on household tasks depending on the task, age of the child, gender of the child, gender of the sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions.

## INTRODUCTION

## Overview of Study

The focus of this study was the time allocations of children from single-parent urban Utah families to the six specific household tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members.

Since the 1970s, an increase in divorce has caused a notable impact on society and families. Issues dealing with poverty, child care, mother's employment and children's well-being have caused society to look more closely at the problems of the single-parent family. The most recent statistics from U.S. Bureau of the Census (1989) indicate that the number of single-parent families with children under 18 more than doubled from 3.8 million in 1970 to 9.4 million in 1988. Not only has the number of single-parent families increased, the proportion of families headed by a single parent has also doubled from $11.1 \%$ in 1970 to $22.9 \%$ in 1988 ("Living Arrangements," 1989). In Utah, the proportion of single-parent families has increased as well, from 9.3\% in 1970 to $12.2 \%$ in 1980 (U.S. Bureau of the Census, 1973, 1983).

The increase in single-parent families has caused researchers to want to better understand these families.

Lyerly (1969) and other researchers have begun addressing the lack of knowledge about single-parent families by expanding their focus using time-use studies. One area of study has been time spent in household work by single-parent families. Studies have established that within most households, the majority of household work is done by the mother (Gershuny \& Robinson, 1988; Walker \& Woods, 1976). Two demographic changes that have occurred in single-parent families that affect the amount of time women spend in household work are: first, the majority of single-parent families are maintained by the mother, $87 \%$ in 1988 (U.S. Bureau of Census, 1989). Second is the increase of women in the work force: $67 \%$ of women with husband absent who maintained families with children under 18 were in the labor force for 1988 (National Commission on Working Women, Workforce 2000, 1989). With the majority of single-parent families being headed by women and with their involvement in the labor force, researchers are asking how these women and their families spend their time in household work.

Studies have examined children's time in household work and differences in time spent by children in single-parent households from those of children in two-parent households (Clark, 1983; Lovett, 1984: Lyerly, 1969; Noyes \& Zick, 1990; Peters, 1985). Their findings show that there are differences between single-parent children's household work time and two-parent children's work time, especially in meal
preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members. Most researchers agree that children in single-parent families spend more time in household work than children in two-parent families.

While the time use of children in the two types of families (one- and two-parent) has been compared, differences between single-parent families have not been examined.

Walker and Woods (1976, p. 260-261), stated:
Before time use can be effectively utilized as a measure of production, it will be necessary to collect data from all kinds of households (e.g. one-parent and two-parent households, urban, suburban, and rural communities, wives, husbands, children, and helpers.

In order to further understand variations in time use in single-parent families, it was necessary to look at some of the factors that are related to these families use time. Specifically, this study looked at the allocations of household work time by children in single-parent families.

## Statement of Problem

Is the time that children in single-parent families spend in household work related to the child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and/or certain household conditions?

## Statement of Purpose

The purpose of this study was to investigate how selected factors related to the time children in singleparent families spend in the household tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members. These household tasks are defined in more detail in Appendix C.

## Objectives of the Study

1. Are age of the child, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year and ownership of a microwave oven related to the time spent in meal preparation by children in single-parent families?
2. Are age of the child, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, ownership of a dishwasher and garbage disposal related to the time spent in dishwashing by children in single-parent families?
3. Are age of the child, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year and number of vehicles owned that are used for transportation related to the time spent in shopping by children in single-parent families?
4. Are age of the child, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year and ownership of a vacuum cleaner related to the time spent in housecleaning by children in single-parent families?
5. Are age of the child, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, whether family was responsible for care of the yard, number of vehicles owned that are used for transportation and ownership of home, pets and power garden and/or yard tools related to the time spent in maintenance of home, yard, car and pets by children in single-parent families?
6. Are age of the child, gender, gender of sibling, mother's time in paid work and school attendance, household income and season of the year related to the time spent in nonphysical care of family members by children in singleparent families?

## Limitations

This study of children's time allocations in singleparent urban Utah families in specific household tasks was weighted using 1980 census information (U. S. Bureau of the Census, 1983). Use of standard weighting procedures allowed these data to reflect a random sample of two-child urban households in Utah (Noyes \& Zick, 1990). The results,
however, cannot be generalized to all single-parent/twochild families.

## REVIEW OF LITERATURE

## Use of Time Diaries

Time diaries are instruments used to record the amount of time individuals spend in various activities.

For the purpose of this study, a time diary similar to the one used by Walker and Woods' (1976) time use study, which was conducted using families in New York in 1967-68, was used. Walker and Woods emphasized the importance of using work categories in measuring household production. Work categories helped to create a measure of all household work activities by grouping the separate segments of time used in work activities into larger categories, such as the grouping of: mopping, vacuuming, sweeping, dusting, waxing, washing windows or walls, cleaning the oven, defrosting and cleaning the refrigerator or freezer, making beds and putting rooms in order into the category of housecleaning. The use of these categories has made the recording of time a more organized process. Definitions and categories of household work activities can be found in Appendix C.

## Overview of Children's Time Allocations

Most research that has analyzed time use of children in single-parent families has compared their use of time to
that of children in two-parent families (Clark, 1983;
Lovett, 1984; Lyerly, 1969; Noyes \& Zick, 1990; Peters, 1985).

Lyerly (1969) was one of the first researchers to examine differences between time use in single-parent and two-parent families. She used the data gathered by Walker and Woods (1976) from 1300 families in Syracuse, New York. She found that single-parent families spent less total time in household work, but their children averaged slightly more time in housecleaning tasks than children in two-parent families. Lyerly concluded in her study that children in single-parent families had more responsibility in household work than children in two-parent families.

Clark (1983) compared data collected on 58 children from 29 one-parent families to that of 60 children from 30 two-parent families living in the Stillwater, Oklahoma area. All children ranged in age from 7 to 18. In Clark's analyses she found no significant differences in the total household work time between children in single and twoparent families, yet within the comparisons of mean time spent in specific tasks Clark found some differences, especially in the task of housecleaning (12.1 minutes per/day vs. 7.2 minutes per/day). In summary, Clark concluded:

The added responsibility that children of singleparents have may not be reflected in the total household work time of the child. Children in single-parent families tend to assume more responsibility by themselves, while children in
two-parent families may only be assigned by their parents to do these household tasks. (p. 49)

Lovett (1984) used California data that had been collected as part of an eleven-state project on urban/rural family time use (Lovingood, 1981). The California data included households from the urban areas of Sacramento and the rural areas from the surrounding counties of Sacramento, Yolo and parts of Sutter and Solano Counties. Data were gathered from 106 children in 81 single-parent families and 110 children from 105 two-parent families. All children included in the study were 6 to 18 years of age. Lovett found a statistically significant difference in the time spent in housecleaning between single-parent and two-parent children. Children from single-parent families contributed 12.1 minutes per day to housecleaning tasks, while children in two-parent families contributed 7.55 minutes per day. Peters (1985) also analyzed the data collected from California as a part of the eleven-state time use project. While Lovett and Peters used the same data, they used different statistical methods in their analyses which lead to different conclusions. Peters found that children in single-parent families spent more time in household work than children in two parent families in the tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members. Most notable was the total time spent by single-parent children compared to two-parent children in
the task of nonphysical care of family members (21.3\% vs. 10.8\%).

Noyes and Zick (1990) used data collected in 1987-88 from one and two-parent/two-child families from the greater metropolitan Salt Lake City, Utah area. The 98 one-parent female-headed families had 155 children and the 107 twoparent families had 109 children, all age 6 and older. They found that children of single mothers spent more time in the total combined housework activities than children in twoparent families. These researchers compared time spent by sons and daughters of employed and non-employed single and married mothers. Children of single-parent mothers spent slightly more time in all housework activities combined when compared with children in two-parent families. They also spent more time than children in two-parent families in the specific tasks of meal preparation, dishwashing and nonphysical care of family members.

## Specific Factors Related <br> to Children's Time Use

Factors such as the child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions that may be related to household work time of children in single-parent families have not previously been examined by researchers. Most research has focused on the differences between single
and two-parent families, but few have studied differences within the two family types related to the time allocations by children in single-parent families to their household work.

Age of child. Studies that have examined the relationship of age of children in single-parent and twoparent children to household work tasks found no significant differences.

Clark (1983), who examined children's time spent in combined household work activities, found no difference in children's time use in household work by family structure or age of the child.

Lyerly (1969) concluded in her study that single-parent children contributed about the same amount of time to household work regardless of age.

Gender differences. There were surprising variations in the findings of researchers who compared time spent by boys and girls in single and two-parent families in household work. Clark (1983) found no difference by gender in the total time spent by children in household work in one and two-parent families combined.

Lovett (1984) found a significant difference in household work time spent by boys and by girls in the tasks of food preparation, dishwashing and housecleaning in one and two-parent families combined.

Noyes and Zick (1990) found that daughters of single mothers spent more time in all housework activities combined than did sons of single mothers. Girls spent more time than boys in the tasks of meal preparation, dishwashing, shopping, housecleaning and nonphysical care of family members. Boys spent more time than girls in the task of maintenance of home, yard, car and pets.

Peters (1985) also found differences between males and females in their household work time. Significant differences between boys and girls were found regardless of family type, for the tasks of food preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members. Girls spent more time than boys in all the above tasks except maintenance of home, yard, car and pets. Peters found that males spent significantly more time than females in maintenance of home, yard, car and pets. When Peters compared children's time use by gender of the child and whether they were from a single or two-parent family, she found a significant difference only in the task of dishwashing. Girls of single-parent families spent more time in dishwashing than girls of two-parent families.

Birth order differences. Lovett (1984) was the only researcher to examine differences between time spent by children in household work tasks related to their birth order. Using the combined data of single-parent and two-
parent children she found no difference between household work time of younger and older children except in the task of dishwashing. Younger children contributed 5.03 minutes per day while older children contributed only 3.27 minutes per day.

Mother's time in paid work and school attendance.
Researchers' findings regarding the effect of mother's time spent in paid work on children's household work time were not consistent. Both Clark (1983) and Lovett (1984) used time of single and two-parent children combined to study differences in children's time spent in household work with regard to their mother's employment. Neither found any differences in children's time related to mother's employment.

Lyerly (1969) found that children of single mothers who were employed either full-time or part-time spent more time in household work than children of full-time or part-time employed married mothers ( 36 minutes per/day vs. 24 minutes per/day). When Lyerly analyzed time spent in household work by children in single-parent families, she found that mothers who were employed fewer than 6 hours per day received more help from her children than mothers who worked more than 6 hours per day.

Noyes and Zick (1990) found that children of nonemployed single-parent mothers spent more time in household work than children of employed single-parent mothers. The
greatest difference in time use between children of nonemployed and employed single-parent mothers was in the task of nonphysical care of family members. Children of nonemployed single-parent mothers spent more time in this activity than children of employed single-parent mothers. Also children of employed single-parent mothers spent slightly more time than children of non-employed mothers in the tasks of meal preparation; shopping; housecleaning and maintenance of home, yard, car and pets. Besides examining mother's time spent in paid work, Noyes and Zick also observed mother's time spent in school and work related to school. They found that single mothers spent significantly more time in school than mothers in two-parent families.

Peters (1985) found that children of employed single mothers spent significantly more time than children of employed married mothers in the household tasks of food preparation; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members. She also found that children's time accounted for a greater percentage of total family time spent on household tasks when children were from households with an employed singleparent mother compared to children from two-parent families, whether or not the mother was employed.

Gender of sibling, household income, season of the year, household equipment and household conditions. No studies could be located in which researchers examined the
relationships of gender of sibling, household income, season of the year, household equipment or household conditions to time spent in household work by children in single-parent families.

## Summary

Time is an important aspect of every person's life. Several researchers have compared time spent in household work by children in single-parent families to time spent by children in two-parent families. There has however, been no research that has analyzed single-parent children only and how the factors of the child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and household conditions are related to the time these children spend in household work. Thus, the major concerns of this study were to examine 1) the amount of time children in single-parent families spent in the household tasks of meal preparation; dishwashing; shopping;
housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members and 2) the relationship of the child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions to the time children spent in household work.

## METHODOLOGY

Sample
'The data to be analyzed were collected from 89 femaleheaded single-parent/two-child households in the greater metropolitan Salt Lake City Utah area. Time use data were collected only for children between the ages of 6 and 17.' Time use information on children under the age of 6 was not collected because it was assumed that their participation in household work activities would be more often play or a learning activity than an actual contribution to household production (Walker \& Woods, 1976). Twelve families were eliminated from the original sample of 101 families: Three male-headed families were eliminated because of the small number and their household incomes greatly exceeded those of the female-headed households. The other 9 families were excluded from this particular study because they did not have children between the ages of 6-17.

There were 178 children in the 89 families, of which 150 were between the ages of 6-17. Of the 150 children 82 were male and 68 were female.)

It was not possible to select a random sample for this study because there was no complete list of single-parent/two-child households. Respondents were initially
sought from organizations that worked with single-parents. Interviewers contacted potential respondents by telephone to determine if the household met the criteria to participate in the study. If eligible, families were then asked to participate. Thus, to reflect a random sample of single-parent/two-child urban Utah households the data were weighted using 1980 census information (U.S. Bureau of Census, 1983). This was the most recent information available to use for this standard weighting procedure (Noyes \& Zick, 1990).

## Assumptions

1. The respondents understood the questions and directions for completing the instruments as explained to them by the interviewer.
2. The answers given by the respondents were accurate and complete.
3. Time use was accurately recalled and recorded by the respondent for each family member.
4. Children ages $6-17$ were enrolled in school during a regular school year using the months of September - May. Summer months were the months of June - August. This grouping of months was used to determine "season of the year".
5. For this particular study, the statistical assumptions of independence of observation and normality have been violated. Within household work there is usually
some relationship between work activities of the individuals who live in the same house. Therefore, independence in performing tasks can not be assumed. Correlation coefficients revealed no problem with multi-collinearity. As for the assumption of normality, the sample deviated somewhat from the normal probability levels. Yet, to consider each individual's contribution to household work multiple regression was the preferred statistical analysis. To assure the validity of this study, the robustness factor was relied on to offset any violations that occurred. The general concept of the robustness factor is that small violations of the assumptions tend to not cause large variations in the results.

## Research Design

Data used for this study were taken from data used for the research reports: A Comparison of Time Use in Utah Families: 1977-78 - 1987-88 (McCullough \& Zick, 1989) and Comparisons of Time Allocation in Single-Parent and TwoParent Utah Households (Noyes \& Zick, 1990). These research designs were cross-sectional, thus collecting data only once from each household.

The type of research design that was used for this particular study was a quantitative approach, using mean minutes as the measurement of analysis. A multiple regression process was used to analyze the relationship between a child's age, gender, birth order, gender of
sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions and the time children in single-parent families spent in the specific household tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members.

## Instrument

Two instruments were used to collect data from respondents, a time diary and a questionnaire. The time diary, sometimes called a time budget, is a form on which respondents record their time use for a 24 hour period (see appendix A). Time diaries are the most reliable and feasible method currently available to gather information on people and how they use their time (Robinson, 1977). Gershuny \& Robinson (1988), indicated that the data from time diaries are stable, reliable, give evidence of basic validity and clearly show a superiority over other time use measurements.

The diary had the time of day, broken down into ten minute segments, printed across the top of the form. The activity categories (See Appendix C) were listed down the side. For the purpose of this study only the categories of meal preparation, dishwashing, shopping, housecleaning, maintenance of home, yard car and pets and nonphysical care of family members were used. Only primary time, which is
defined as the activity requiring the respondents full attention were analyzed. Travel time was not a separate activity category, it was recorded with the activity for which the trip was made.

The questionnaire (See Appendix B), included questions about housing and household equipment, household production, household members' education, employment, amount and source of income, as well as their household conditions. The portion of the questionnaire that was used in this study dealt with employment of the mother, household equipment, some household conditions and household income.

The instruments were organized into packets and contained all the required forms including one questionnaire, two time diaries, one set of instructions for completing the time diary and a time use dictionary listing each of the activity categories and the specific activities included in each category. This packet was distributed to the families by the interviewers.

## Collecting and Handling Data

Data were collected by the Survey Research Center at the University of Utah using trained interviewers. After interviewers had made first contact with potential respondents by telephone to determine eligibility and willingness to participate, personal interviews were then conducted with the mothers.

A personal interview was used for data collection because a time diary can best be explained and demonstrated in a face-to-face conversation. Personal interviews also encourage the respondents to complete all parts of the questionnaire.

During the first meeting with the homemaker, the interviewer explained the purpose of the study and the contents of the interview packet. Next, the interviewer helped the homemaker complete the first time diary, recording the families' activities from the previous day (recall day). The homemaker was asked to complete the second time diary the next day, recording activities for her and each family member age 6 and older as they occurred (record day). The homemaker was requested to check the accuracy of her records with the other members of the family. The interviewer returned the day after the second time diary had been completed to check for completeness and to gather the packets. Interviews were conducted throughout the year, using all seven days of the week to take into account any seasonal or day of the week variations in a family's time use. The packets were then mailed back to USU for coding. If data were missing, an attempt was made to contact the homemaker, in order to complete the records (McCullough \& Zick, 1989).

## Operational Definitions

The following terms are defined as they are used in this research.

1. Two-Parent Family - A husband and wife household with children (Walker \& Woods, 1976).
2. Single-Parent Family - A household consisting of one adult with children. For the purpose of this study, this family consisted of a mother and two children.
3. Time Use - For the purpose of this study, "time use", "time spent" and "time allocation" all refer to the amount and/or the allotment of time individuals gave to various activities.
4. Household Work Activities/Tasks - The tasks or chores performed by each family member that meet the needs of the family such as food, shelter, clothing and nurturing (Walker \& Woods, 1976). For the purpose of this study, only the tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members performed by children were analyzed.
5. Age of the child - The actual age of the child in years. For the purpose of this study, only children ages 617 were used.
6. Gender of the Child - Whether the child was a boy or a girl.
7. Birth Order - Whether the child was the older or the younger child. In this study there were only two children in the family.
8. Gender of sibling - Whether the other child was a boy or girl.
9. Mother's Time in Paid Work and School Attendance For the purpose of this study, the number of hours a child's mother was employed, attending school or conducting work that was related to school were combined to reflect an average time spent by mothers in work or school.
10. Household Income - For the purpose of this study was total income before taxes for the household during the previous twelve months. This included wages and salaries, net income from business or farm, pensions, dividends, interest, rent, Social Security payments and any other money received by members of the household. It did not include ADC, AFDC, welfare, alimony, child support or help from relatives because these sources of income are not included in government poverty statistics.
11. Season of the Year - For the purpose of this study, reflected whether data were gathered during the months September - May, when the child would have been in school or the months June - August, when the child would have been out of school for the summer.
12. Household Equipment - For the purpose of this study, referred to the specific household equipment that the
child would have used to perform a certain activity such as microwave oven in time spent in meal preparation; dishwasher or garbage disposal in time spent in dishwashing; use of car for transportation in time spent in shopping; vacuum cleaner in time spent in housecleaning and use of yard and garden equipment in time spent in maintenance of home, yard, car and pets.
13. Household Conditions - For the purpose of this study, the term referred to whether the family lives in a house or apartment that they owned or rented, whether the family had responsibility for the care of the yard, number of vehicles owned by the household for transportation and whether the family owned any pets.

## Data Analysis

「Multiple regression analysis was used to analyze the data. This procedure examined the relationship of a child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions and time spent on the tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members.) By using this procedure, the study determined which factor or combination of factors explains the most variance in the amount of time children in single-parent families spent in each of the six specific tasks. It should be noted that a
multiple regression analysis does not prove cause and effect.

Limitations in the analysis occurred when mother's time spent in school attendance and work related to school were not reflective of an accurate mean time, thus distorting the analysis. Because of the limited number of mothers that were involved in this activity, their involvement was hidden by the large number of mothers who had zero hours in this activity. Mother's time spent in school was found to be a significant variable in the amount of time children spent in household work for those children with mothers involved in school and was therefore, combined with mother's employment hours to reflect the amount of time mothers spent away from home.

## RESULTS

## Description of Sample

The data were gathered during 1987 and 1988. A total of 89 households were included in the study, 40 were interviewed in 1987 and 49 in 1988.

Description of participants. The sample consisted of 89 female-headed single-parent/two-child households. The homemakers' mean age was 36.6 years. Of the 89 women, 68 reported they worked for pay during the week before their interviews were conducted. Twelve of the women reported holding second jobs. Thirty-four of the 89 women attended school. Their time spent in school and in work related to school ranged from 5 minutes to 695 minutes per day.

Homemakers' income ranged from $\$ 0$ to more than $\$ 55,000$, with an average of $\$ 18,936$ for a family of three. Income was defined as the total income before taxes for the household during the past twelve months (Appendix B, Household Conditions). This included wages and salaries, net income from business or farm, pensions, dividends, interest, rent, social security payments and any other money received by members of the household. It did not include ADC, AFDC, welfare, alimony, child support or help from
relatives because these sources of income are not included in government poverty statistics.

The federal poverty level for a family of three for 1988 was $\$ 9,960$ ("Poverty income guidelines," 1988); 24\% of the families in this study fell below that level.

There were 178 children in the households in this study, 150 of the children were 6-17, the age for which time use data had been collected and consequently could be included in the research. Of the 150 children, there were 82 males and 68 females. The average age of the children was 10.5 years (Table 1).

Housing and household technology. Information was gathered from the respondents on housing and household conditions. The subjects indicated whether or not the family was responsible for care of the yard and whether they owned or rented their dwelling. Information was also gathered about ownership of pets and the number of vehicles the family owned that were used for transportation. There was a total of 110 vehicles owned by the 89 households, an average of 1.23 cars per household (Table 2).

Ownership of household technology by the family indicates which appliances children had available to use while participating in the household work activities of meal preparation, dishwashing, shopping, housecleaning and maintenance of home, yard, car and pets. The task of nonphysical care of family members would not typically

Table 1
Description of Participants
Characteristic Measurement N $\quad \mathrm{N} \quad$ Mean $\quad$ SD

Mean age of participants

| Boys | Years | $82 *$ | 54.7 | 11.20 | 3.25 |
| :--- | :---: | ---: | ---: | ---: | ---: |
| Girls | Years | $68 *$ | 45.3 | 8.03 | 13.61 |
| Children | Years | $150 *$ | 100 | 10.48 | 3.24 |
| Mother | Years | 89 | 100 | 36.64 | 5.26 |

## Gender of participants

| Boys | Frequency | $82 *$ | 54.7 | NA | NA |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Girls | Frequency | $68 *$ | 45.3 | NA | NA |

## Birth order of child

| Older child | Frequency | $84^{*}$ | 56.0 | NA | NA |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Younger child | Frequency | $66^{*}$ | 44.0 | NA | NA |

Gender of sibling

| Boys | Frequency | $77 *$ | 51.3 | NA | NA |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Girls | Frequency | $73 *$ | 48.7 | NA | NA |

Mother's paid work and school attendance

| Mother's 1st job | Hrs/wk | 68 | 76.4 | 37.43 | 8.78 |
| :--- | :--- | :--- | ---: | ---: | ---: |
| Mother's 2nd job | Hrs/wk | 12 | 13.5 | 8.92 | 7.13 |
| Both jobs | Hrs/wk | 68 | 76.4 | 39.00 | 9.57 |
| All mothers' work | Hrs/wk | 89 | 100 | 29.80 | 18.62 |
| Mother's in school | Min/day | 34 | 38.2 | 210.07 | 209.85 |
| All mothers' school | Min/day | 89 | 100 | 80.25 | 164.47 |
| Mother's wk \& sch | Hrs/wk | $150 *$ | 100 | 31.38 | 17.06 |

Household Income, before taxes (past 12 months)
Income Dollars $89 \quad 100 \quad 18,936 \quad 12,183$

Season of the Year

| Summer | Frequency | $27 *$ | 18.0 | NA | NA |
| :--- | :--- | ---: | :--- | :--- | :--- |
| School year | Frequency | $123 *$ | 82.0 | NA | NA |

Note. * Indicates analysis considered all 150 children and is not reflective of the 89 households.

Table 2
Descriptive Characteristics of Household

| Characteristic | Frequency | $\%$ |
| :--- | ---: | ---: |
|  |  |  |
| Ownership of Home | 58 | 38.7 |
| Renting of Home | 92 | 61.3 |
| Responsible for Yard Care | 103 | 68.7 |
| Ownership of No Vehicles | 1 | .7 |
| Ownership of One Vehicle | 123 | 82.0 |
| Ownership of Two Vehicles | 25 | 16.7 |
| Ownership of Three Vehicles | 1 | .7 |
| Ownership of Pets | 114 | 76.0 |

Note. $\underline{N}=150$ children.
require use of household equipment. The automatic defrost refrigerator/freezer and the self-cleaning range were not included in the analyses because there would be no way to determine whether children were or were not involved in work activities related to these items. Also defrosting the refrigerator and cleaning the range are household tasks that are done infrequently and it is doubtful that time spent in these two tasks would have been included in the two days' time diaries. Ownership of a trash compactor was also eliminated because only 4 families owned one and it was, therefore, not a typical household appliance in the singleparent household (Table 3).

Data for this study were analyzed for individual children not by household. Some results will not reflect the status of the 89 families. For example, Table 3

Table 3
Descriptive Characteristics of Equipment Available

Equipment Owned
Frequency \%

| Microwave Oven | 113 | 75.3 |
| :--- | ---: | ---: |
| Dishwasher | 85 | 56.7 |
| Garbage Disposal | 100 | 66.7 |
| Vacuum Cleaner | 144 | 96.0 |
| Yard and Garden Tools | 65 | 43.3 |

Note. $\underline{N}=150$ children
indicates there were 113 microwave ovens. This does not mean that 113 microwave ovens were owned by the 89 families but that 113 of the 150 children had use of a microwave.

## Multiple Regression Analysis

The objectives for this study were tested using a multiple regression analysis. The statistical software package SPSSX was used. The level of significance was set at . 05. Forced entry multiple regression models were used to perform the analyses.

Time use was gathered on 150 children in the study for two days. Time use for the two days was averaged to reflect time spent by children in each of the six specific household tasks.

The dependent variables for this particular study were time spent by children in six household tasks including: meal preparation; dishwashing; shopping; housecleaning;
maintenance of home, yard, car and pets and nonphysical care of family members (Table 4).

Table 4
Definitions of Dependent Variables Used in the Multiple
Regression Analyses

## VARIABLE <br> NAME

DEFINITION
MEASUREMENT

AR1 Average time spent by children in Meal
min/day Preparation

AR2 Average time spent by children in Dishwashing min/day
AR3 Average time spent by children in Shopping min/day
AR4 Average time spent by children in min/day Housecleaning

AR5 Average time spent by children in Maintenance min/day of Home, Yard, Car and Pets

AR9 Average time spent by children in Nonphysical min/day Care of Family Members

To determine which factors were related to time spent by children in each of the six specific household tasks, 16 independent variables were used: age of the child, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, housing ownership, ownership of pets, ownership of selected household technology, number of vehicles used for
transportation and whether the family was responsible for care of the yard. Definitions of these independent variables can be found in Table 5.

If the regression model or independent variables within the model were found to be significant then the model was split and run separately by sex to reveal variations between boys and girls. The dependent variables used in the split multiple regression models can be found in Table 6. The variable of sex was not included in the split regressions.

As time use data were reported for all 150 children to reflect their independent contributions to household work, the assumption of independence of observation for household work performed within the household was violated. The household work time of a child may be related to the time the child's sibling spends doing household tasks. Durbin-Watson test results will appear in all multiple regressions. Durbin-Watson tests for an auto correlation within the data. Test results for Durbin-Watson range from 0.0 to 4.0 , with 2.0 being the mid-range, indicating no correlation. Results between 1.0 and 3.0 would indicate a slight correlation to no correlation. Those test results falling outside this range would indicate a correlation between a child and his/her sibling and performance of household tasks.

Time spent by boys and girls. Comparisons of mean time spent by boys and girls in the six household tasks show that girls spent more time than boys in all tasks except for

Table 5

## Definitions of Independent Variables

VARIABLE NAME DEFINITION
MEASUREMENT

| AGE | Age of child | Actual years |
| :---: | :---: | :---: |
| SEX | Gender of child (dummy) | $\begin{aligned} & 0=\text { male } \\ & 1=\text { female } \end{aligned}$ |
| OLDYOUNG | Older or younger child Birth order (dummy) | $\begin{aligned} & 0=\text { younger } \\ & 1=\text { older } \end{aligned}$ |
| SIBSEX | Gender of sibling (dummy) | $\begin{aligned} & 0=\text { male } \\ & 1=\text { female } \end{aligned}$ |
| SCHWRKHR | School \& work hours of homemaker | Hours/per week |
| HSINC | Household income before taxes (past 12 months) | Dollars |
| SCHLYR | School year/non school year (dummy) | $\begin{aligned} & 0=\text { summer } \\ & 1=\text { school year } \end{aligned}$ |
| MIC | Ownership of a microwave (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |
| DISH | Ownership of a dishwasher (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |
| GAR | Ownership of a garbage disposal disposal (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |
| CARS | Cars available for transportation | Number |
| VAC | Ownership of a vacuum cleaner (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |
| HOME | Rents or owns home (dummy) | $\begin{aligned} & 0=\text { rents } \\ & 1=\text { owns } \end{aligned}$ |
| YARD | Responsible for care of yard (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |
| YEQ | Ownership of yard equipment and garden tools (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |
| PETS | Ownership of pets (dummy) | $\begin{aligned} & 0=\text { no } \\ & 1=\text { yes } \end{aligned}$ |

Table 6
Definitions of Dependent Variables Used in Significant split Regression Models

VARIABLE
NAME
DEFINITION
MEASUREMENT

AG2 Average time spent by Girls in Dishwashing
min/day
AB2 Average time spent by Boys in Dishwashing min/day
AG3 Average time spent by Girls in Shopping min/day
AB3 Average time spent by Boys in Shopping min/day
AG4 Average time spent by Girls in Housecleaning min/day
AB4 Average time spent by Boys in Housecleaning min/day
AG5 Average time spent by Girls in Maintenance of min/day Home, Yard, Car and Pets

AB5 Average time spent by Boys in Maintenance of min/day Home, Yard, Car and Pets

AG9 Average time spent by Girls in Nonphysical min/day Care of Family Members

AB9 Average time spent by Boys in Nonphysical Care min/day of Family Members
maintenance of home, yard, car and pets. The greatest differences between girls and boys were time spent in shopping and nonphysical care of family members. Boys spent more time than girls in maintenance of home, yard, car and pets. The total combined time of these six activities revealed that girls spent more time in household work than boys (Table 7).

Table 7
Time Spent in the Six Household Activities

| ACTIVITY | $\begin{aligned} & \text { Girls Time Spent } \\ & \text { N MEAN S.D. } \\ & \text { (minutes/per day) } \end{aligned}$ |  |  | Boys Time SpentN MEAN S.D.(minutes/per day) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Meal Preparation | 68 | 8.03 | 3.03 | 82 | 6.45 | 10.78 |
| Dishwashing | 68 | 3.07 | 7.32 | 82 | 2.76 | 8.09 |
| Shopping | 68 | 24.68 | 30.31 | 82 | 11.59 | 20.47 |
| Housecleaning | 68 | 9.79 | 17.93 | 82 | 6.23 | 11.35 |
| Maintenance | 68 | 7.43 | 42.45 | 82 | 13.61 | 42.10 |
| Nonphysical Care | 68 | 51.79 | 136.58 | 82 | 40.05 | 118.25 |
| Total | 68 | 104.79 |  | 82 | 80.69 |  |

Time spent in meal preparation. Using the forced entry multiple regression model, no significance was found in the overall model or in the eight independent variables for time spent by children in meal preparation (Table 8).

Time spent in dishwashing. The multiple regression model for time spent by children in dishwashing was significant (with an $F=2.3860$ ) at the .0152 level. The Adj. R Sq. revealed that only $8 \%$ of the variance was accounted for by the nine independent variables. The only significant independent variable was mother's time in paid work and school attendance. The negative relationship indicates that children spent less time in the task of

Table 8
Multiple Regression for Average Time Spent by Children in
Meal Preparation

Dependent Variable: AR1 Method: Enter . 05
Variables Entered: 1. HSINC 2. SIBSEX 3. OLDYOUNG
4. SEX 5. MIC 6. SCHLYR 7. SCHWRKHR 8. AGE

Adj. R Sq. $=-2 \%$
$S E=12.27$
$D F=141 \quad F=.5679$
Signif. $F=.8028$

No Independent Variable Significance
1 Outlier found
Durbin-Watson Test $=1.984$
Note. $\underline{N}=150$ children
dishwashing as their mothers spent more time in employment and school (Table 9).

The split multiple regression model for time spent by boys in the task of dishwashing was not significant. However, the split model did reveal that the variable, mother's time spent in employment and school work, was significant. The negative relationship between the amount of time boys spent in dishwashing and mother's time in employment and school indicates that as mother's time in employment and school increased, boys time spent in dishwashing decreased (Table 10).

The split multiple regression analysis for time spent by girls in dishwashing was significant at the . 0208 level.

Table 9
Multiple Regression for Average Time Spent by Children in
Dishwashing

Dependent Variable: AR2
Method: Enter . 05

| Variables Entered: | 1. HSINC | 2. SIBSEX | 3. GAR | 4. SEX |
| :---: | :---: | :--- | :--- | :--- | :--- |
| 5. OLDYOUNG | 6. SCHLYR | 7. SCHWRKHR | 8. AGE | 9. DISH |

Adj. R Sq. $=8 \%$
$\mathrm{SE}=7.42$
$D F=140$
$F=2.3860$
Signif. $F=.0152$ *

| Variable | B | Beta | T | Sig T |
| :---: | :---: | :---: | :---: | :---: |
| HSINC | -1.7028 | -. 0279 | -. 314 | . 7539 |
| SIBSEX | -2.2141 | -. 1437 | -1.682 | . 0948 |
| GAR | -1.4115 | -. 0864 | -. 956 | . 3405 |
| SEX | . 0375 | . 0024 | . 028 | . 9774 |
| OLDYOUNG | -. 8200 | -. 0529 | -. 623 | . 5341 |
| SCHLYR | . 0324 | . 0016 | . 020 | . 9844 |
| SCHWRKHR | -. 1389 | -. 3066 | -3.606 | . 0004 |
| AGE | . 2969 | . 2223 | 1.336 | . 1839 |
| DISH | 1.1303 | . 0727 | . 745 | . 4576 |
| (Constant) | 5.9422 |  | 1.853 | . 0660 |
| * $=$ Signif. | . 05 le |  | Signi | . 01 le |
| 4 Outliers found |  |  | in-Wats | st $=1$ |

Note. $\underline{N}=150$ children

Table 10
Split Multiple Regression for Average Time Spent by Boys in Dishwashing

Dependent Variable: AB2 Method: Enter . 05
Variables Entered: 1. HSINC 2. SCHLYR 3. OLDYOUNG 4. GAR 5. SIBSEX 6. AGE 7. SCHWRKHR 8. DISH

Adj. R Sq. $=4 \%$
$S E=7.9234$
$\mathrm{DF}=73$
$F=1.4380$
Signif. $F=.1955$

| Variable | B | Beta | T | Sig T |
| :---: | :---: | :---: | :---: | :---: |
| HSINC | -1.2822 | -. 0200 | -. 159 | . 8742 |
| SCHLYR | -. 8474 | -. 0452 | -. 390 | . 6976 |
| OLDYOUNG | -1.9022 | -. 1165 | -1.002 | . 3198 |
| GAR | -. 0208 | -. 0012 | -. 010 | . 9924 |
| SIBSEX | -3.5082 | -. 2175 | -1.785 | . 0784 |
| AGE | . 0887 | . 0356 | . 289 | . 7737 |
| SCHWRKHR | -. 1645 | -. 3527 | -2.769 | . 0071 |
| DISH | . 7595 | . 0467 | . 334 | . 7395 |
| (Constant) | 10.7332 |  | 2.371 | . 0204 |
| * $=$ Signif | t. 05 lev |  | Signi | . 01 lev |
| 2 Outliers | und | Durbin-Watson Test $=2.153$ |  |  |
| Note. $\underline{N}=$ | boys |  |  |  |

The independent variables explained $15 \%$ of the variance in time girls spent washing dishes. Two independent variables, mother's time spent in employment and school and ownership of a garbage disposal, were significant predictors (Table 11).

Table 11
Split Multiple Regression for Average Time Spent by Girls in Dishwashing

Dependent Variable: AG2 Method: Enter . 05
Variables Entered: 1. HSINC 2. AGE 3. GAR 4. SCHWRKHR 5. SCHLYR 6. SIBSEX 7. OLDYOUNG 8. DISH

Adj. R Sq. = 15\% $\quad \mathrm{SE}=6.7368 \quad \mathrm{DF}=59 \quad \mathrm{~F}=2.4980$
Signif. $F=.0208$ *

| Variable | B | Beta | T | Sig |
| :---: | :---: | :---: | :---: | :---: |
| HSINC | -2.9580 | -. 0514 | -. 399 | . 6911 |
| AGE | . 5349 | . 2217 | 1.629 | . 1086 |
| GAR | -4.5936 | -. 2993 | -2.244 | . 0286 |
| SCHWRKHR | -. 1074 | -. 2442 | -2.069 | . 0430 |
| SCHLYR | 3.6189 | . 1515 | 1.261 | . 2122 |
| SIBSEX | -. 6934 | -. 0472 | -. 377 | . 7078 |
| OLDYOUNG | . 4861 | . 0334 | . 262 | . 7945 |
| DISH | 2.0991 | . 1436 | 1.036 | . 3044 |
| (Constant) | -. 8987 |  | -. 217 | . 8287 |
| * $=$ Signif. | . 05 lever |  | Signif | 01 le |
| 1 Outlier f |  |  | in-Wats | t $=$ |
| Note. $\underline{N}=68$ girls |  |  |  |  |

$\qquad$

The relationships between both of the independent variables and the dependent variable were negative. The negative relationship between mother's time spent in employment and school work and girl's time spent in dishwashing indicated that as mother's time in these activities increases, girl's time decreases. Ownership of a
garbage disposal was not found to be significant in the overall multiple regression model for time spent by children in dishwashing but was a significant variable in predicting girl's time spent in dishwashing. The negative relationship indicates girls time spent in dishwashing decreased in those households who owned a garbage disposal.

Time spent in shopping. The analysis of time spent by children in shopping was significant at the . 0292 level. The Adj. R Sq. indicated that the model explained only $6 \%$ of the variance.

Two independent variables were significant predictors of time spent by children in shopping: gender of the child and gender of the sibling. The results indicate that girls spent significantly more time than boys in shopping. Gender of sibling was significant at the .0235 level indicating that children spent more time in the task of shopping if their sibling was a girl (Table 12).

The split multiple regression model for time spent by boys in shopping was not significant. However, one independent variable, household income, was significantly related to shopping time of boys. The negative relationship reveals that time spent by boys in shopping decreases as household income increases (Table 13).

The split multiple regression model for time spent by girls in shopping was not significant (Table 14).

Table 12
Multiple Regression for Average Time Spent by Children in
Shopping

Dependent Variable: AR3 Method: Enter . 05
Variables Entered: 1. HSINC 2. SIBSEX 3. OLDYOUNG
4. SEX 5. SCHLYR 6. CARS 7. SCHWRKHR 8. AGE

Adj. R Sq. $=6 \%$
$\mathrm{SE}=25.3290$
DF $=141$
$F=2.2215$
Signif. $F=.0292$ *

| Variable | B | Beta | T | Sig $T$ |
| :--- | :--- | :--- | :--- | :--- |


| HSINC | -1.4486 | -. 0070 | -. 083 | . 9342 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIBSEX | 10.3207 | . 1980 | 2.291 | . 0235 | * |
| OLDYOUNG | -1.3078 | -. 0249 | -. 283 | . 7776 |  |
| SEX | 14.1991 | . 2713 | 3.143 | . 0020 | ** |
| SCHLYR | -4.5825 | -. 0676 | -. 798 | . 4263 |  |
| CARS | . 2673 | . 0042 | . 046 | . 9635 |  |
| SCHWRKHR | . 0541 | . 0353 | . 416 | . 6781 |  |
| AGE | -. 5240 | -. 0649 | -. 646 | . 5196 |  |
| (Constant) | 14.3037 |  | 1.324 | . 1875 |  |
| * $=$ Signif | . 05 le | ** $=$ Signif. at . 01 level |  |  |  |
| 1 Outliers | nd | Durbin-Watson Test $=1.726$ |  |  |  |

Note. $\underline{N}=150$ children

Table 13
Split Multiple Regression for Average Time Spent by Boys in Shopping

Dependent Variable: AB3 Method: Enter . 05
Variables Entered: 1. HSINC 2. SCHLYR 3. OLDYOUNG 4. CARS 5. SIBSEX 6. SCHWRKHR 7. AGE

| Adj. R Sq. $=14 \%$ | SE $=19.8070 \quad \mathrm{DF}=74$ | $F=1.7851$ |
| :--- | :--- | :--- |
|  | Signif. $F=.1030$ |  |


| Variable | B | Beta | T | Sig T |
| :---: | :---: | :---: | :---: | :---: |
| HSINC | -4.1667 | -. 2582 | -2.156 | . 0343 |
| SCHLYR | -4.7660 | -. 1006 | -. 895 | . 3735 |
| OLDYOUNG | 4.6314 | . 1122 | . 966 | . 3374 |
| CARS | -4.4178 | -. 1003 | -. 805 | . 4235 |
| SIBSEX | 7.8560 | . 1926 | 1.590 | . 1161 |
| SCHWRKHR | . 0609 | . 0516 | . 407 | . 6854 |
| AGE | . 0147 | . 0023 | . 018 | . 9858 |
| (Constant) | 19.0510 |  | 1.780 | . 0791 |
| * = Signif. | . 05 lev |  | Signi | 01 le |
| 2 Outliers | and |  | in-Wat | t $=1$ |
| Note. $\underline{N}=82$ boys |  |  |  |  |

Table 14
Split Multiple Regression for Average Time Spent by Girls in Shopping

Dependent Variable: AG3
Method: Enter . 05
Variables Entered: 1. HSINC 2. AGE 3. SCHWRKHR 4. SCHLYR 5. OLDYOUNG 6. SIBSEX 7. CARS

Adj. R Sq. $=2 \% \quad \mathrm{SE}=29.9487 \quad \mathrm{DF}=60 \quad \mathrm{~F}=1.2330$
Signif. $F=.2993$

No Independent Variable Significance
0 - Outliers found Durbin-Watson Test $=2.056$
Note. $\underline{N}=68$ girls

Time spent in housecleaning. The multiple regression model for time spent by children in housecleaning was not significant, but the independent variable, age of the child, was a significant predictor. There was a positive relationship between the amount of time children spent in housecleaning and age of the child (Table 15).

The split multiple regression for time spent by boys in housecleaning was not significant (Table 16), but the equation for girls was significant. The Adj. R Sq. indicates that the model explained $11 \%$ of the variance. The significant relationship between time spent by girls in housecleaning and their age (Table 17), indicates girls' time in housecleaning activities increased with age.

Table 15
Multiple Regression for Average Time Spent by Children in
Housecleaning

Dependent Variable: AR4
Method: Enter . 05
Variables Entered: 1. HSINC 2. SIBSEX 3. OLDYOUNG 4. SEX 5. VAC 6. SCHLYR 7. SCHWRKHR 8. AGE

Adj. R Sq. $=3 \% \quad \mathrm{SE}=14.5005 \quad \mathrm{DF}=141 \quad \mathrm{~F}=1.6564$
Signif. $F=.1143$

| Variable | B | Beta | T | Sig T |
| :--- | ---: | ---: | ---: | ---: |
| HSINC | 1.6170 | .1388 | 1.614 | .1087 |
| SIBSEX | 1.4132 | .0480 | .549 | .5842 |
| OLDYOUNG | -4.2298 | -.1428 | -1.662 | .0987 |
| SEX | 4.6003 | . .1557 | 1.771 | .0787 |
| VAC | -3.4784 | -.0464 | -.556 | .5794 |
| SCHLYR | -.4807 | -.0126 | -.148 | .8827 |
| SCHWRKHR | -.0425 | -.0491 | -.570 | .5696 |
| AGE | . .9450 | .2073 | 2.209 | .0288 |
| (Constant) | -3.6574 |  | -.627 | .5315 |

Table 16
Split Multiple Regression for Average Time Spent by Boys in Housecleaning

Dependent Variable: AB4
Method: Enter . 05
Variables Entered: 1. HSINC 2. SCHLYR 3. OLDYOUNG
4. SIBSEX 5. VAC
6. AGE
7. SCHWRKHR

Adj. R Sq. $=-4 \% \quad \mathrm{SE}=11.5709 \quad \mathrm{DF}=74 \quad \mathrm{~F}=.5550$
Signif. $F=.7890$

No Independent Variable Significance
3 Outliers found Durbin-Watson Test $=2.209$

Note. $\underline{N}=82$ boys

Table 17
Split Multiple Regression for Average Time Spent by Girls in Housecleaning

Dependent Variable: AG4
Method: Enter . 05
Variables Entered: 1. HSINC 2. VAC 3. OLDYOUNG 4. SCHWRKHR 5. SCHLYR 6. SIBSEX 7. AGE

Adj. R Sq. = 11\% $\quad \mathrm{SE}=16.8680 \quad \mathrm{DF}=60 \quad \mathrm{~F}=2.2399$
Signif. $F=.0431$ *

| Variable | B | Beta | T | Sig T |
| :--- | ---: | ---: | ---: | ---: |
| HSINC | 3.2314 | .2289 | 1.901 |  |
| VAC | -4.0490 | -.0384 | -.328 | .7429 |
| OLDYOUNG | -6.8979 | -.1935 | -1.512 | .1357 |
| SCHWRKHR | .0501 | .0465 | .399 | .6911 |
| SCHLYR | 2.0280 | .0346 | .286 | .7758 |
| SIBSEX | 2.6711 | .0742 | .580 | .5641 |
| AGE | 2.2947 | .3881 | 2.814 | .0066 ** |
| (Constant) | -19.3089 |  | -2.005 | $.0495 *$ |


| $*=$ Signif. at .05 level | $* *=$ Signif. at . 01 level |
| :--- | :--- |
| $0-$ Outliers found | Durbin-Watson Test $=1.620$ |

Note. $\underline{N}=68$ girls

Time spent in maintenance of home, yard, car and pets. The multiple regression model for time spent by children in maintenance of home, yard, car and pets was not significant. The independent variable, responsibility for care of the yard was a significant predictor of time spent in this
household task. The negative relationship revealed that children's time spent in this activity decreased if the family was responsible for care of the yard (Table 18).

Table 18

## Multiple Regression for Average Time Spent by Children in

Maintenance of Home, Yard, Car and Pets

Dependent Variable: AR5 Method: Enter . 05
Variables Entered: 1. HSINC 2. SIBSEX 3. OLDYOUNG 4. SEX 5. YARD 6. SCHLYR 7. CARS 8. PETS 9. SCHWRKHR 10. YEQ 11. HOME 12. AGE
Adj. R Sq. $=0 \% \quad \mathrm{SE}=42.1448 \quad \mathrm{DF}=137 \quad \mathrm{~F}=1.0481$

Signif. $F=.4091$

| Variable | B | Beta | T | Sig T |
| :---: | :---: | :---: | :---: | :---: |
| HSINC | -4.2320 | -. 0127 | -. 137 | . 8909 |
| SIBSEX | 6.1421 | . 0729 | . 796 | . 4273 |
| OLDYOUNG | -6.0852 | -. 0718 | -. 776 | . 4389 |
| SEX | -. 6341 | -. 0075 | -. 081 | . 9353 |
| YARD | -18.9791 | -. 2092 | -2.081 | . 0393 |
| SCHLYR | -3.4104 | -. 0311 | -. 347 | . 7291 |
| CARS | -6.8285 | -. 0669 | -. 703 | . 4835 |
| PETS | -11.4769 | -. 1165 | -1.288 | . 2000 |
| SCHWRKHR | . 2178 | . 0880 | 1.001 | . 3188 |
| YEQ | 8.4436 | . 0994 | . 965 | . 3362 |
| HOME | 14.6218 | . 1692 | 1.593 | . 1135 |
| AGE | 2.1838 | . 1674 | 1.528 | . 1287 |
| (Constant) | -8.3344 |  | -. 386 | . 7004 |
| * = Signif | t. 05 le |  | Signif | 1 lev |
| 2 Outlier found |  |  | Durbin-Watson Test $=1.2227$ |  |

Note. $\underline{N}=150$ children

There were no significant relationships found in the split multiple regression for time spent by boys in maintenance of home, yard, car and pets (Table 19).

Table 19
Split Multiple Regression for Average Time Spent by Boys in Maintenance of Home, Yard, Car and Pets

```
Dependent Variable: AB5
Method: Enter . 05
Variables Entered: 1. HSINC 2. SCHLYR 3. OLDYOUNG
    4. YARD 5. CARS 6. SIBSEX 7. PETS 8. YEQ
    9. SCHWRKHR 10. HOME 11. AGE
Adj. R Sq. = -4% SE = 42.7931 DF = 70 F = .7616
    Signif. F = .6762
```

No Independent Variable Significance
1 Outlier found
Durbin-Watson Test $=2.0227$
Note. $\underline{N}=82$ boys

One significant predictor was found in the split multiple regression for time spent by girls in maintenance of home, yard, car and pets. This was a negative relationship between time spent by girls in maintenance of home, yard, car and pets and whether the household was responsible for care of the yard (Table 20).

Time spent in nonphysical care of family members. Boys and girls spent more time in this activity than in any of

Table 20
Split Multiple Regression for Average Time Spent by Girls in Maintenance of Home, Yard, Car and Pets

Dependent Variable: AG5 Method: Enter . 05
Variables Entered: 1. HSINC 2. AGE 3. SCHWRKHR 4. YEQ 5. SCHLYR 6. OLDYOUNG 7. PETS 8. SIBSEX 9. CARS 10. HOME 11. YARD

Adj. R Sq. $=-1 \% \quad \mathrm{SE}=42.6639 \quad \mathrm{DF}=56 \quad \mathrm{~F}=.9386$

$$
\text { Signif. } F=.5113
$$

| Variable | B | Beta | T | Sig T |
| :---: | :---: | :---: | :---: | :---: |
| HSINC | -1.8964 | -. 0567 | -. 371 | . 7121 |
| AGE | . 6186 | . 0442 | . 270 | . 7884 |
| SCHWRKHR | . 2046 | . 0802 | . 640 | . 5251 |
| YEQ | 18.8532 | . 2213 | 1.305 | . 1972 |
| SCHLYR | 12.3245 | . 0889 | . 625 | . 5343 |
| OLDYOUNG | 6.6885 | . 0792 | . 550 | . 5845 |
| PETS | -15.7510 | -. 1425 | -1.040 | . 3028 |
| SIBSEX | -5.2512 | -. 0616 | -. 444 | . 6590 |
| CARS | . 3901 | . 0031 | . 020 | . 9841 |
| HOME | 26.8114 | . 2940 | 1.788 | . 0792 |
| YARD | -36.7701 | -. 4083 | -2.349 | . 0224 |
| (Constant) | -18.0396 |  | -. 580 | . 5644 |
| * $=$ Signif | t.05 leve |  | Signi | 01 lev |
| 1 Outlier | and |  | Durbin-Watson Test $=2.405$ |  |
| Note. $\underline{N}=$ | girls |  |  |  |

the other five tasks studied. The multiple regression model for time spent by children in nonphysical care of family members was significant at the . 0000 level. The Adj. R Sq.
indicates that the independent variables explained $35 \%$ of the variance in the model, more than accounted for in any of the other equations.

The $\underline{N}$ for this particular model was reduced to 84 because only the older child would normally spend time in nonphysical care of another family member which would usually be the younger child. Separate cases were examined to find if any special circumstances existed that allowed the younger child to spend time in this activity, such as a mother being ill, and none were found.

Two independent variables, season of the year and age of the child, were both found to be significant negative predictors in this model. Children's time spent in nonphysical care of family members decreased during the school year indicating children spent more time in this activity during the summer months. The negative relationship between age of the child and time spent by children in nonphysical care of family members indicates that as age of the child increased time spent in nonphysical care of family members decreased (Table 21).

The split multiple regression model for time spent by boys in nonphysical care of family members was significant and explained $22 \%$ of the variance. This model also had a reduced $\underline{N}=48$, eliminating the younger male sibling. Season of the year was the only independent variable significantly related to the dependent variable (Table 22).

Table 21
Multiple Regression for Average Time Spent by Children in Nonphysical Care of Family Members

Dependent Variable: AR9 Method: Enter . 05
Variables Entered: 1. HSINC 2. SIBSEX 3. SCHLYR
4. SEX 5. SCHWRKHR 6. AGE

Adj. R Sq. $=35 \%$
SE 115.3937
$D F=77 \quad F=8.4452$
Signif. $F=.0000$ **


Note. $\underline{N}=84$ older children

Table 22
Split Multiple Regression for Average Time Spent by Boys in Nonphysical Care of Family Members


The negative relationship between boys' time in nonphysical care of family members and season of the year indicates that time spent by boys in this activity decreased during the school year.

The split multiple regression model for time spent by girls in nonphysical care of family members was also significant and explained $62 \%$ of the variance. The $\underline{N}$ for this model was reduced to 36 , eliminating the younger female
siblings. Season of the year was once again the sole independent variable that had a significant relationship with the dependent variable. Age of the child, which was a significant predictor in the multiple regression model for time spent by children in nonphysical care of family members did not prove to be significant in either of the split models (Table 23).

Table 23
Split Multiple Regression for Average Time Spent by Girls in Nonphysical Care of Family Members

Dependent Variable: AG9 Method: Enter . 05
Variables Entered: 1. HSINC 2. AGE 3. SCHWRKHR 4. SCHLYR 5. SIBSEX

$$
\begin{aligned}
& \text { Adj. R Sq. }=62 \% \quad \text { SE }=90.2989 \quad D F=30 \quad F=12.5838 \\
& \text { Signif. } F=.0000 * *
\end{aligned}
$$

| Variable | B | Beta | T | Sig T |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HSINC | -1.6092 | -. 0122 | -. 110 | . 9130 |  |
| AGE | -8.8191 | -. 1863 | -1.595 | . 1211 |  |
| SCHWRKHR | . 3302 | . 0376 | . 353 | . 7264 |  |
| SCHLYR | -366.1806 | -. 6976 | -6.444 | . 0000 | ** |
| SIBSEX | 51.3367 | . 1767 | 1.475 | . 1506 |  |
| (Constant) | 450.3445 |  | 5.292 | . 0000 | ** |
| * = Signif. | at . 05 leve |  | Signif | 01 leve |  |
| 1 Outlier f | und - Case | Durbin-Watson Test $=2.397$ |  |  |  |

Note. $\underline{N}=36$ older female children

SUMMARY

## Discussion

This research examined the time allocations of children from single-parent urban Utah families to the household tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members. The relationship between the independent variables, child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions and the dependent variables, time spent in the tasks, was studied using multiple regression analyses.

A review of the literature revealed that some research had examined time use of children in single-parent households compared to that of children in two-parent households. No research has specifically examined the factors that could be related to the time spent in household work by children in single-parent families.

Children's time use. Time spent by boys and girls in the six household tasks of meal preparation, dishwashing, shopping, housecleaning, maintenance of home, yard, car and pets and nonphysical care of family members revealed that
girls spent more time than boys in each activity except for the task of maintenance of home, yard, car and pets. Girls also spent more time than boys in the combined time of all six household tasks.

Age of child. Significant relationships were found between the independent variable, age of the child, and time spent in the tasks of housecleaning by children, housecleaning by girls and nonphysical care of family members by children. The time spent in nonphysical care of family members had a negative relationship with the age of the child: as the age of the child increased, time spent in nonphysical care decreased. No research was found to compare with these results.)

Gender of child. The relationship between gender of the child and time spent shopping was significant. Girls spent significantly more time shopping than did boys. No research was found to compare with these results.

Gender of sibling. The independent variable gender of sibling was found to be a significant predictor of the time spent shopping by children. If the sibling was a girl, the time spent shopping by children increased. (No other research used this variable to examine time use of children in single-parent households.)

Mother's time in paid work and school attendance. The independent variable mother's time in paid work and school attendance was found to have a significant relationship with
the time spent in dishwashing by children, boys and girls. All three relationships were negative indicating time spent by children, boys and girls in dishwashing decreased as mother's time spent in paid work or school increased. (No research was found to compare with these results.)

Household income. The independent variable household income was negatively related to the time boys spent shopping. This relationship indicated that the time boys spent shopping decreased as household incomes increased. (No other research used this variable to examine time use of children in single-parent households.)

Season of the year. The independent variable season of the year was a significant predictor of time spent in nonphysical care of family members by children, boys and girls. More time was spent by boys and girls in the task during the summer months than during the school year. (No research was found to compare with these results.)

Household equipment. The independent variable ownership of a garbage disposal was the only household equipment found to be significantly related to time use. Ownership of a garbage disposal was a negative predictor of time spent by girls in dishwashing indicating that girls' time spent in dishwashing decreased if the family owned a garbage disposal. (No research was located that related household equipment to time spent in household tasks by children of single parent households.)

Household conditions. The independent variable responsibility for yard care was a significant predictor for time spent in maintenance of home, yard, car and pets. Children's time in this task decreased if the family was responsible for care of the yard. This was particularly true for girls.

A summary of the significant results can be found in Table 24 .

Table 24

## Significant Results of Multiple Regression Analyses

1. Time Spent By Children in Dishwashing $\underline{p}=.0152$
a. Mother's Time in Paid Work and School Attendance
$\underline{p}=.0004$
2. Time Spent By Boys in Dishwashing
a. Mother's Time in Paid Work and School $\quad \mathrm{p}=.0071$
Attendance
3. Time Spent By Girls in Dishwashing
$\underline{p}=.0208$
a. Mother's Time in Paid Work and School Attendance
$\underline{p}=.0430$
b. Ownership of a Garbage Disposal
$\underline{p}=.0286$
4. Time Spent By Children in Shopping
$\mathrm{p}=.0292$
a. Gender of Child
$\mathrm{p}=.0020$
b. Gender of Sibling
$\underline{p}=.0235$
5. Time Spent By Boys in Shopping
a. Household Income
$\underline{p}=.0343$
6. Time Spent By Children in Housecleaning a. Age of the Child
$\mathrm{p}=.0288$
7. Time Spent By Girls in Housecleaning
$\mathrm{p}=.0431$
a. Age of the child
$\mathrm{p}=.0066$
8. Time Spent By Children in Maintenance of Home, Yard, Car and Pets
a. Responsible for Care of the Yard $\underline{p}=.0393$
9. Time Spent By Girls in Maintenance of Home, Yard, Car and Pets
a. Responsible for Care of the Yard $p=.0224$
10. Time Spent By Children in Nonphysical Care of Family Members
$\mathrm{p}=.0000$
a. Season of the Year $\mathrm{p}=.0000$
b. Age of the child $p=.0171$
11. Time Spent By Boys in Nonphysical Care of Family Members
$\mathrm{p}=.0071$
a. Season of the Year $p=.0010$
12. Time Spent By Girls in Nonphysical Care of Family Members
$\mathrm{p}=.0000$
a. Season of the Year
$p=.0000$

## CONCLUSIONS

## Discussion

Research results reported by Clark, (1983); Lovett, (1984); Lyerly, (1969); Noyes and Zick, (1990); and Peters, (1985), all indicated that children of single-parent households spend more time in household work than children in two-parent households. No previous research has specifically examined the household work time of children in single-parent households and factors related to the time spent in household tasks.

This study examined the time spent by children, ages 617, in single-parent families in the household tasks of meal preparation; dishwashing; shopping; housecleaning; maintenance of home, yard, car and pets and nonphysical care of family members.

Meal preparation. Time spent by children in meal preparation was not found to be significantly related to any of the independent variables of: a child's age, gender, birth order, gender of sibling, mother's time in paid work and school attendance, household income, season of the year and ownership of a microwave oven.

Dishwashing. Time spent by children, boys and girls in dishwashing was found to be significantly related to
mother's time spent in paid work and school attendance. The relationship was negative for all three analyses indicating the more time the mother spent in work and school the less time children spent in dishwashing. A possible explanation for these negative relationships may be that mothers feel this activity needs to be supervised and therefore children are more likely to do dishwashing when mothers are at home. Another reason may be that if a mother is not present to insist that children do this activity, children do not do it. A third possibility may be that meals are more simplified, more prepared foods are brought in or more meals are eaten away from home eliminating the quantity of dishes to be washed when the mother is employed.

The only household technology found to reduce time spent in household work was ownership of a garbage disposal. Ownership of a dishwasher made no difference. The negative relationship between girls time spent in dishwashing and ownership of a garbage disposal indicated time spent by girls in dishwashing decreased with ownership of a garbage disposal. This result was probably only characteristic of the families that were sampled but is not typical for all single-parent families. No other research has examined household equipment and its relationship with time spent by children in household work.

Shopping. The relationship between time spent by children in shopping and gender of the child supports the
results of other researchers who have compared differences between the two family types indicating girls spend more time in this activity than boys.

The independent variable gender of the sibling was examined to determine if time children spend in household tasks was related to the gender of the child's sibling. If the sibling was a girl, children spent more time shopping.

It was found that boys spent less time in shopping as income of the household increased. The negative relationship between boys time spent shopping and household income had not been found by other researchers.

Housecleaning. The positive relationship between time spent by children and girls in housecleaning and age of the child was an expected result. As the age of a child increases the specific housecleaning tasks the child is capable of doing also increases. However, boys time in housework did not increase with age, indicating that sex roles stereotyping begin early.

Maintenance of home, yard, car and pets. The relationship between time spent by children, by boys and by girls in maintenance of home, yard, car and pets and whether the family was responsible for the care of the yard was a negative relationship. Children's time, especially girls', decreased in this activity if the family was responsible for care of the yard. One explanation for this result may be that if the family is responsible for care of the yard, the
mother may feel compelled to spend more time in the care of the yard.

Nonphysical care of family members. Thirty-five percent of variance in time spent in nonphysical care of family members by children was explained by the independent variables. Two independent variables, age of the child and season of the year were significant predictors.

The negative relationship between time spent by children in the task of nonphysical care of family members and age of the child might be explained by the difference in the ages of the older and younger child. There may not be a large enough age difference of the older and younger child that the older child could reasonably care for the younger child. No explanation could be drawn for why the independent variable, age of child, was only found to be significant for children's time in nonphysical care of family members and not significant for either girls or boys in this activity.

Season of the year was the only independent variable that was significantly related to time in nonphysical care of family members in the split regressions for boys and girls. It would be expected that children would have more time available during the summer months than during the school year to spend in this activity. Also they may be assuming some of the paid child care a mother would be responsible for during the months an older child would be in
school, thereby keeping the money within the family or reducing the cost of child care.

## Summary

One independent variable that was found not to be significant was birth order, whether a child was the older or the younger. One reason for its non-significance may be that the mean age of the children was young, 10.5 years, indicating there was probably not a large enough difference in the ages of the older and the younger child for there to be a difference in their household work time. It may also indicate the older child did not assume more work in the absence of a spouse as is often assumed.

It was interesting to note that household work time by children was limited by the small number of children who participated in each of the tasks. The total time spent by children in single-parent families was only 91.62 minutes per/day. There were many children who did not contributed any time in household work. Yet, for those who were involved in household work, they did contribute a fair amount of time.

This study found that gender of the child and mother's time spent in paid work and school are variables that are related to children's time use and were found to be significant by other researchers who compared time spent by children in single-parent families to that of children in two-parent families. Age of the child was not found to be
significant in other research on single-parent children, but was in this study for the tasks of housecleaning and nonphysical care of family members. Other variables found to be significant for this study, such as gender of the sibling, household equipment, household income, household conditions and season of the year and their relationship to children's time use have not been examined by any other researchers.

## Implications and <br> Recommendations

This research has indicated that the time children in single-parent families spend in household work varies depending on the task, age of the child, gender, gender of the sibling, mother's time in paid work and school attendance, household income, season of the year, household equipment and certain household conditions. Researchers, educators, parents and others who are involved with children may need to look at these results from two different aspects. First, the time spent by children in single-parent families in household work, although more than that spent by children in two-parent families, does not reflect that children are spending a large amount of time in household chores. Perhaps all children need to increase their contributions to household work. They may need to be taught the skills to help with household chores. (Educators and parents should encourage, support and build the skills and
management training to help children care for themselves and also attend to their developmental growth needs. The other aspect to be considered is that, though only a few, some children in single-parent families do contribute a large amount of time toward household work. (Educators and parents also need to be made aware that a large increase in time spent in household work may cause a decrease in time spent in other activities such as school work, social and recreational activities that could be detrimental to their development.

Further research to examine other aspects of time spent by children in single-parents families can help to determine in what areas these children may need personal development, to strengthen their household and management skills or to create a balance of their involvement in household work, school, paid work, social and recreational activities in order to build and expand their lives.

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APPENDICES

Appendix A
Time Diary


Appendix B

Housing and Household Equipment
Questionnaire

1. Do you own or rent your home? $\qquad$ Own or buying
$\qquad$ Rent $\qquad$ Other
2. Is your household primarily responsible for care of the yard? Yes $\qquad$ No

If YES, what is the approximate size of the lot that you take care of?
3. How many rooms are in your home? (DO NOT COUNT BATHROOMS OR HALLS) $\qquad$
4. How many full bathrooms do you have?
5. How many partial bathrooms do you have?
6. What is the main source of heat for your home?
$\qquad$ Electric
Gas
-
Oil
Coal
$\qquad$ Wood Other $\qquad$ Don't Know
7. What is the main source of heat for cooking?

8. How many vehicles do you have that are used for transportation by members of your household? 1 [ 2 — 3 — 4 — 5 - $6+$
9. How many drivers are in your household? 11
$\qquad$ 2 $\qquad$ 3 $\qquad$ 4 5 $6 \quad$ 7+
10. Do you have any household pets? $\qquad$ Yes $\qquad$ No
11. Is your refrigerator/freezer a: $\qquad$ Manual defrost _ Partial automatic defrost (must defrost freezing compartment) $\qquad$ Full automatic (no frost)
$\qquad$ Don't Know
12. Do you have a separate freezer?

Yes No
13. If you own a separate freezer, is it a: $\qquad$ Manual defrost $\qquad$ Frost-free Don't Know
14. If you have a conventional oven, is it: _ Continuous cleaning _ Self-cleaning Neither Don't Know
15. In your house do you have a: (if YES, how many times was it used during:)

YES/NO Recall day Record day Past week
Microwave Oven?
Dishwasher?
Garbage Disposal?
Trash Compactor?
Washing Machine?
Clothes Dryer?
Sewing Machine?
Vacuum Cleaner?

$\qquad$
Power Garden and/or
Yard Equipment?
Personal Computer?
Power Shop Tools?


Household Production

1. Please list the meals prepared or assembled to be eaten at home or to be eaten away from home, such as a sack lunch; note the number of individuals who ate each one.

Recall day/Meal
Number who ate the meal
$\qquad$
Record day/Meal
Number who ate the meal
$\qquad$
$\qquad$
$\qquad$
$\qquad$
2. Please list the meals eaten away from home, where the meal was eaten and the number of household members who ate the meal.

Recall day Meal

Location

Number of household members who ate the meal
$\qquad$
3. Please list the take-out foods such as pizza, hamburgers, or fried chicken purchased and brought home to be eaten as a meal or as part of a meal.

Recall day
Record day
$\qquad$
$\qquad$
$\qquad$
4. How many times were the following done by a household member for your family?

Recall day Record day Past Week
Shopping for items or
services?
Of the items or services,
how many cost over \$100?
Special housecleaning?
Painting, redecorating?
Inside household repairs?
Repairing appliances?
Repairing an automobile(s)? $\qquad$
Working in the yard, garden,
including harvesting?
Working on other outside areas
of the house or property? $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
5. How many times did any household member(s) chauffeur another household member?

Recall day Record day Past Week
To and/or from doctor, dentist or barber?
To and/or from paid work?
To and/or from school or classes?
To and/or from a social function?
To and/or from an organization, including church?
To and/or from an educational
or athletic activity?
To and/or from a store?
6. Did you or any family member have someone from outside the household do any of the following?

$$
\text { yes } \frac{\text { Recall day }}{\text { no }} \begin{gathered}
\text { approx. } \\
\text { time }
\end{gathered} \quad \text { yes no approx. }
$$

Take care of your children
in your home?
Take care of your children in someone else's home?
Take care of your children in a day center?
Take care of other household member (s)?
Do housecleaning?
Do lawn or yard work?
Do painting, or redecorating?
Service appliances?
Work on your motor vehicles?
Do house maintenance?
Other services?

7. Were any of the following done by someone in your hold?

$$
\frac{\text { Recall day }}{\text { Yes Nocord day }} \frac{\text { past } 7 \text { days }}{\text { Yes No }}
$$

Number of times in the

Canning, pickling, making jams and jellies?
Freezing food?
Preparing food for another day?
Shopping for food?

Household Members' Employment

1. What was the highest grade in school you completed? (IF DEGREE MENTIONED NOTE)

Homemaker
2. Last week were you employed? (IF NO, GO TO QUESTION 17) $\qquad$ yes $\qquad$ no
3. If YES, was this for pay? $\square$ yes $\qquad$ no
For pay, but not at work, example, illness or vacation? $\qquad$ yes $\qquad$ no
4. If employed, what kind of work did you do?
(IF MORE THAN 1 JOB, ANSWER THE FOLLOWING QUESTIONS ABOUT THE FIRST OR PRIMARY JOB) $\qquad$
5. What kind of industry or business were you employed in?
6. How many hours did you work for pay last week?
7. What is the usual number of hours you work for pay a week?
8. Are you: __ An hourly wage earner? __ On commission? Self-employed? Salaried?
$\qquad$ Other?
9. If hourly, what is your hourly wage rate? \$ $\qquad$
10. Did you have more than one paid job last week? (IF NO, GO TO QUESTION 17)
yes $\qquad$ no
11. If YES, what kind of work was this?
12. What business or industry was it in?
13. How many hours did you work for pay last week on this job?
14. What is the usual number of hours you work for pay per week on this job?
15. For this second job are you: An hourly wage earner? Salaried? On commission?
$\qquad$ Self-employed? $\qquad$ Other?
16. If HOURLY, what is your hourly wage for your second job?
17. If you worked without pay in a family business or farm, how many hours did you work last week?
18. How many of your children 12 years of age and older worked for pay last week? If NONE, go to question 23. If YES, complete questions 19 through 22.

> Child I child II
19. What is the age of the child(ren)? $\qquad$
$\qquad$ What is the sex of the child(ren)? $\qquad$
$\qquad$
20. What kind of work did he/she do? $\qquad$
21. How many hours did he/she work last week?
22. Approximately how much did he/she earn last week?
23. Which category on this card represents the total income before taxes for your household in the past twelve months? This includes wages and salaries, net income from business or farm, pensions, dividends, interest, rent, Social Security payments and any other money received by members of your household?


Household Conditions

1. Were there unusual weather conditions that affected household members' time use?

On Recall day
On Record day
2. Were there any unusual physical conditions or situations regarding your residence that affected household members' time use? These would include both the house and care.

On Recall day
On Record day $\qquad$
3. Were there any unusual activities of your family or household members that affected household members' time use?

On Recall day
On Record day $\qquad$
4. Are there any special situations in your home, for example: handicapped or chronically ill family members, that affected household members' time use?

On Recall day
On Record day
5. Are there special ways your household members "save" time on household activities? $\qquad$

The following statements have to do with how you manage. Please rate how often you do each of the following, using this scale: 1 - Never, 2 - Occasionally, 3 - Frequently, 4 - Constantly, 5 - Don't Know, Circle one.

1. Decide upon things I want to get or accomplish. $\begin{array}{llllll} & 2 & 3 & 4 & 5\end{array}$
2. Make a definite decision about things. $\quad 1 \quad 2 \quad 3 \quad 4 \quad 5$
3. Balance use of energy, time, money, and help from others to get the greatest benefit. $\quad 1 \quad 2 \quad 3 \quad 4 \quad 5$
4. Develop plans that can be used over and over for doing certain things. $1 \begin{array}{lllll} & 2 & 3 & 4 & 5\end{array}$
5. Decide how to put my time to best use. $\quad 1 \quad 2 \quad 3 \quad 4 \quad 5$
6. Consider the influence of one decision on other decisions that will have to be made. $1 \quad 2 \quad 3 \quad 4 \quad 5$
7. Develop plans for doing or getting what is wanted.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
8. Use results from previous experiences when making decisions and planning.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
9. Take action on plans that have been made. $1 \begin{array}{lllllllll}1 & 2 & 3 & 4 & 5\end{array}$
10. Get work done in a reasonable amount of time.
11. Balance what is wanted now with what is wanted in the future.
12. Talk with other family members about goals and the plans for accomplishing them.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
13. Usually finish things once you start them.
$\begin{array}{lllll}1 & 2 & 3 & 4 & 5\end{array}$
The following questions consider your feelings about your life in general. Please respond to the next four questions using this scale. Responses range from: 1 - Completely dissatisfied, 2 - Somewhat dissatisfied, 3 - Neutral (about equally satisfied and dissatisfied), 4 - Somewhat satisfied, 5 - Completely satisfied.
14. First, how satisfied are you with your use of time?
15. How satisfied are you with your progress toward improving your life as a whole? $1 \begin{array}{lllllllll} & 2 & 3 & 4 & 5\end{array}$
16. Using the same scale, how satisfied are you with your life as a whole? $1 \begin{array}{lllllllllllll} & 2 & 3 & 4 & 5\end{array}$
17. Finally, how satisfied are you with the extent to which you control your life? $1 \begin{array}{lllllllllll} & 2 & 3 & 4 & 5\end{array}$
18. Did anyone in your household receive income during the past twelve months from any of the following sources? If YES, how much?
a. farming or market gardening?
b. roomers or boarders?
$\square$ yes $\qquad$ no \$ $\qquad$
c. dividends, interest, rent, trust funds, or royalties?
d. ADC or AFDC?
e. Supplemental Security Income?
f. other welfare?
g. Social Security?
$\qquad$
yes $\square$ no \$ $\qquad$
h. other retirement pay, pensions, or annuities? $\qquad$ yes $\qquad$ no \$ $\qquad$
i. unemployment or workers compensation?
_yes $\qquad$ no \$ $\qquad$
j. alimony/child support?
_yes $\qquad$ no \$
k. help from relatives?
_yes $\qquad$ no \$ $\qquad$
l. anything else? $\square$ yes $\qquad$ no \$ $\qquad$
19. Did you or anyone else in your family use government food stamps at any time during the past twelve months?
$\qquad$ yes no

ASK QUESTION 2a. ONLY IF THE ANSWER TO QUESTION 2 IS "YES".
2a. How many dollars worth of food stamps did you get? \$ $\qquad$

Appendix C<br>Time Research Definitions of Activities<br>for Household Members

## Food Preparation

All tasks relating to the preparation of food for meals, snacks, and future use.

## Dishwashing

In addition to washing and drying dishes, loading and unloading dishwasher or dish drainer.

Include after-meal cleanup of table, leftovers, kitchen equipment and refuse.

## Shopping

All activities related to shopping for food, supplies, equipment, furnishings, clothing, durables, and services, whether or not a purchase was made (by telephone, by mail, at home or at the store).

Also include: Comparison shopping
Putting purchases away Getting or sending of mail and packages Hiring of services (cleaning, repair, maintenance other)

## Housecleaning

Any regular or periodic cleaning of house and appliances, including such tasks as:

Mopping, vacuuming, sweeping, dusting and/or waxing Washing windows or walls
Cleaning the oven; defrosting and cleaning the refrigerator or freezer
Making beds and putting rooms in order

## Maintenance of Home, Yard, Car and Pets

Any repair and upkeep of home, appliances, and furnishings such as:

Painting, papering, redecorating and/or carpentry
Repairing equipment, plumbing and/or furniture
Putting up storm windows or screens
Taking our garbage and trash
Care of houseplants and/or flower arranging
Daily and periodic care of outside areas such as:
Yard and/or garden (If activity is primarily recreation
rather than goal motivated, include time under recreation category.)
Sidewalks, driveways, patios and/or outside porches
Garage, tool shed and/or other outside areas
Swimming pool
Any repair and upkeep of vehicles such as:
Washing and/or waxing
Changing oil, rotating tires and other maintenance or repair work
Taking motor vehicles to service station, garage or car wash
Feeding and care of house pets.
Also include trips to kennel or veterinarian.

## Care of Clothing and Household Linens

Washing by machine at home or away from home including:
Collecting and preparing soiled items for washing
Loading and unloading washer or dryer
Hanging up items and removing from the line
Folding
Hand Washing
Ironing and pressing
Also include: Getting out equipment and sprinkling
Putting away cleaned items and equipment
Polishing shoes
Preparing items for commercial laundry or dry cleaning
Seasonal storage of clothing textiles

## Construction of Clothing and Household Linens

Making alterations or mending
Making clothing and household accessories (draperies, slipcovers, napkins etc.) include such activities as:

Sewing
Embroidering
Knitting, crocheting and/or macrame
If these activities are to make products for self, immediate family members or to give as gifts, include under this activity.

```
If these activities are primarily to produce products for sale, include time under paid work category.
If activity is primarily recreation rather than goal motivated, include time under recreation category.
```


## Physical Care of Household Members

All activities related to physical care of household members other than self such as:

Bathing, feeding, dressing and other personal care First aid or bedside care
Taking household members to doctor, dentist and/or barber

## Nonphysical Care of Household Members

All activities related to the social and educational development of household members such as:

Playing with other children
Teaching, talking and/or helping children with homework
Reading aloud
Chauffeuring and/or accompanying children to social and educational activities
Attending functions involving your child

## Management

Making decisions and planning such as:
Thinking about, discussing and investigating alternatives
Looking for ideas and seeking information
Assessing resources available (space, time, money etc.)
Planning--family activities, vacations, menus, shopping
lists, purchases and investments
Supervising and coordinating activities
Checking plans as they are carried out
Thinking back to see how plans worked
Financial activities such as:
Making bank deposits and checking bank statements Paying bills and recording receipts and expenses Figuring income taxes
Using home computer to manage household finances or records

School Work
School--Classes related to present or future employment Include time spent in preparation for each of the
above. For example, work or reading done at home or the library relating to job or classes.

## Paid Work

Paid employment and work-related activities, such as:
Work brought home
Professional, business and union meetings or conventions etc.
Paid work for family farm or business, babysitting and/or paper route

## Unpaid Work

Work or services done either as a volunteer or as an unpaid worker for relatives, friends, family business or farm, social, civic and/or community organizations

## Organization Participation

Attending and participating in:
Religious activities and services
Civic and political organizations
Other clubs and organizations

## Social and Recreational Activities

Reading (other than required for school or work)
Watching TV
Watching video tapes
Listening to radio, stereo etc.
"Going out" to movies, car shows, museums, sporting events, concerts etc.
Participating in any sport, hobby or craft
Taking a class or lesson for personal interest
Walking, cycling, boating, "taking a ride" and/or training animals
Talking with friends or relatives, either in person or by telephone
Entertaining at home or being entertained away from home
Writing letters, or cards to friends and/or relatives
Playing games, musical instruments etc. (If adult or older
child is playing with younger child include such
activities under nonphysical care)
Exercising (if done for pleasure)

## Personal Care of Self

Sleeping
Bathing, getting dressed, other grooming and personal care Making appointments and going to doctor, dentist, beautician and other personal services
Relaxing, loafing and/or resting
Meditation
Exercising (if done to maintain or improve physical condition)

## Eating

Eating any meal or snack, alone, with family or friends at home or away from home

Other
Any activity not classified in other categories
Any time black for which you cannot recall, do not know or do not wish to report

